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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/348,652	07/06/1999	JAMEY GRAHAM	15358-005500	5555

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PAUL A DURDIK
TOWNSEND AND TOWNSEND AND CREW LLP
TWO EMBARCADERO CENTER
8TH FLOOR
SAN FRANCISCO, CA 941113834

EXAMINER	
PAULA, CESAR B	
ART UNIT	PAPER NUMBER
2178	

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/348,652	GRAHAM, JAMEY	
	Examiner	Art Unit	
	CESAR B. PAULA	2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7,8,10-15,17,18,20-25,27,28 and 30-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7,8,10-15,17,18,20-25,27,28 and 30-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the IDSs, and amendment filed on 8/8, 8/8, and 10/3/2005 respectively.

This action is made Final.

2. In the amendment, claims 1-5, 7-8, 10-15, 17-18, 20-25, 27-28, and 30-37 are pending in the case. Claims 1, 10-11, 20-21, 30, and 37 are independent claims.

3. The rejection of claim 37 rejected under 35 U.S.C. 102(e) as being anticipated by Aalbersberg (Pat.# 5,946,678, 8/31/99, filed 1/11/95, as disclosed in IDS paper 3), has been withdrawn as necessitated by the amendment.

4. The rejections of claims 1-5, 7-8, 11-15, 17-18, 21-25, 27-28, 31, and 33 rejected under 35 U.S.C. 103(a) as being unpatentable over Ball et al, hereinafter Ball, "Software Visualization in the Large", IEEE Computer, vol.29, No.4, pp. 33-43 (4/1996, as disclosed in IDS paper 2), in view of Wroblewski et al, hereinafter, Wroblewski (Pat.# 5,479,600, 12/26/1995, as disclosed in IDS paper 3), have been withdrawn as necessitated by the amendment.

5. The rejections of claims 10, 20, 30, 32, 34 and 36 rejected under 35 U.S.C. 103(a) as being unpatentable over Aalbersberg, in view of Wroblewski, have been withdrawn as necessitated by the amendment.

Specification

6. The amendment to the specification which explains that this application contains colored photographs content, is acknowledged herein.

Information Disclosure Statement

7. The IDSs filed on 8/8, and 10/3/2005 have been considered by the Examiner.

Drawings

8. The submission of a petition for colored photographs has been made, and is acknowledged herein.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1-5, 8, 11-15, 17-18, 21-25, 27-28, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ball et al, hereinafter Ball, "Software Visualization in the Large", IEEE Computer, vol.29, No.4, pp. 33-43 (4/1996, as disclosed in IDS paper 2), in view of Card et al, hereinafter Card, "Readings in Information Visualization Using Vision to Think", Morgan Kaufmann Publishers, 1/25/1999, pages 236-243.

Regarding independent claim 1, Ball discloses the color-coding of a document based on a concept of interest—"code age"-- input by a user. Color-coding takes place by analyzing the document and color-coding or identifying locations or *occurrences* of interest in the document as per the concept of interest indicated by the user-- (page 4, 2.1, and fig. 1).

Furthermore, Ball discloses a right pane—*visual indicator*-- for indicating the display of a concentration of the analyzed new, and old code by their respective color-coding. A user can look at the right pane thumbnail and view the concentration of the old and new code throughout the document, based on the different color of the code -- (page 4, 2.1, and fig. 1). Ball fails to explicitly disclose *a visual indicator showing persistence values of the user-specified concept of interest at locations within the electronically stored document, the persistence values of the user-specified concept of interest at the locations determined based upon a number of the occurrences of discussion of the user-specified concept of interest at the locations, for a location within the electronically stored document, the visual indicator displays a persistence value of the user-specified concept of interest at that location relative to other locations in the electronically stored document, wherein the visual indicator comprises a first axis representing locations within the electronically stored document and a second axis representing relative strength of a user specified concept of interest.* However, Card teaches the display of a graphical widget--*visual indicator*—which allows one selection to determine two values (fig.9, page 242, col.3, parag.2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Ball, and Card, because Card teaches the benefit of permitting humans to recognize spatial configuration, relationships among elements of the 2D widget, quickly. This

also entails that people can grasp the content in the widget faster that they could scan, and understand text (page 241, col. 1, last parag.-col.3). This would enable a user to be able to easily navigate a file by quickly locating desired words in a document by spotting the places where the words are located and distributed by merely looking at a single location in the widget.

Regarding claim 2, which depends on claim 1, Ball discloses a right pane—*visual indicator*-- for indicating the display of a line representation where a document contour showing undulating lines of code—*contour graph image*—showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each line in the representation graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 3, which depends on claim 1, Ball discloses a right pane—*visual indicator*-- for indicating the display of a line representation *or line graph* showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each line in the representation graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 4, which depends on claim 1, Ball discloses a right pane—*visual indicator*-- for indicating the display of two bars—*bar graph*-- containing color-coded rows of pixels showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each row in the bar graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 5, which depends on claim 1, Ball discloses a right pane—*visual indicator*-- for indicating the display containing color-coded lines scattered—*scatter diagram*-- throughout a visual representation of a document showing the relative strength of the concept of interest--analyzed new, and old code-- by highlighting each row in the bar graph with their respective color-coding -- (page 4, 2.1, and fig. 1).

Regarding claim 8, which depends on claim 1, Ball discloses the display of an elongated thumbnail version of a document with portions color-coded—*annotated*-- to identify a user's concept of interest –*occurrences discussion* (page 4, 2.1, and fig. 1).

Claims 11-15, 17-18, 33 are directed towards a computer program product on a computer-readable medium for storing the steps found in claims 1-5, 7-8, and 31 respectively, and therefore are similarly rejected.

Claims 21-25, 27-28 are directed towards a computer system for implementing the steps found in claims 1-5, and 7-8, therefore are similarly rejected.

11. Claims 7, 31, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ball et al, hereinafter Ball, "Software Visualization in the Large", IEEE Computer, vol.29, No.4, pp. 33-43 (4/1996, as disclosed in IDS paper 2), in view of Card, and further in view of Wroblewski et al, hereinafter, Wroblewski (Pat.# 5,479,600, 12/26/1995, as disclosed in IDS paper 3).

Regarding claim 7, which depends on claim 31, Ball discloses a red box for showing the same portion of the document in three different scaled panes -- (page 4, lines 19-20, and fig. 1). Ball fails to explicitly teach *accepting user input moving said slider to a second section of said visual indicator and responsive to movement of said slider to said second section of said visual indicator, displaying a section of said electronically stored document corresponding to said second section of said visual indicator* . However, Wroblewski teaches the display of a graphical frame-- *visual indicator*—which displays the locations vertical, and horizontal scroll bars, which contain cars that enable a user to display of corresponding portions of a document in a screen. The cars are moved up and down within their respective scroll bars-- *movement of said slider to said second section*-- to a second location for displaying a corresponding section in the document (fig.2, col.1, lines 30-41, col.3, lines 28-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Ball, Card, and Wroblewski, because Wroblewski teaches the benefit of determining the distribution of significant attributes in a data file (col. 1, lines 56-67). This would enable a user to be able to quickly locate desired words in a document by spotting the places where the words are located or distributed using the scroll bars or axes.

Regarding claim 31, which depends on claim 1, Ball discloses the display of a red box for showing the same portion of the document in three different scaled panes -- (page 4, lines 19-20 and fig. 1). Ball fails to explicitly teach *displaying a slider on said visual indicator, said slider highlighting a section of said visual indicator corresponding to said section of said electronic document displayed on said display* . However, Wroblewski teaches the display of a graphical frame-- *visual indicator*—which displays the locations vertical, and horizontal scroll bars, which

contain cars that enable a user to display of corresponding portions of a document in a screen. The cars are moved up and down within their respective scroll bars to by covering or highlighting the position of the scrollbars to where the cars were moved to (fig.2, col.1, lines 30-41, col.3, lines 28-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Ball, Card and Wroblewski, because Wroblewski teaches the benefit of determining the distribution of significant attributes in a data file (col. 1, lines 56-col..2, line 5). This would enable a user to be able to quickly locate desired words in a document by spotting the places where the words are located or distributed using the scroll bars or axes.

Claim 35 is directed towards a computer system for implementing the steps found in claim 31, and therefore are similarly rejected.

12. Claims 10, 20, 30, 32, 34 and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aalbersberg (Pat.# 5,946,678, 8/31/99, filed 1/11/95, as disclosed in IDS paper 3), in view of Card.

Regarding independent claim 10, Aalbersberg discloses a window for receiving query words–"car, sales, Europe"-- indicating user's concepts of interest input (c. 2, L. 1-58, and fig. 2).

Furthermore, Aalbersberg discloses the display of a results window having a list of indicators—*selectable concept indicators*-- presenting the relevance of the query words or concepts of interest using color scheme. The indicators also have a view button, which allows a user to select the corresponding indicator to view the full text of the document containing the

query words. In response to the selection of the view button, the document is retrieved and analyzed for the corresponding query words—*occurrences*-- present in the document. Each query word is retrieved, and displayed using the color scheme (col. 6, L. 1-39, and fig. 4-5). Aalsbersberg fails to explicitly disclose *a visual indicator showing persistence values of the first-user specified concept of interest at locations in said electronically stored document, the persistence values of the first user-specified concept of interest at the locations determined based upon a number of the occurrences of discussion of the first user-specified concept of interest at the locations, wherein the visual indicator comprises a first axis representing locations within the electronically stored document and a second axis representing persistence values of a user specified concept of interest.* However, Card teaches the display of a graphical widget-- *visual indicator*—which allows one selection to determine two values (fig.9, page 242, col.3, parag.2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Ball, and Card, because Card teaches the benefit of permitting humans to recognize spatial configuration, relationships among elements of the 2D widget, quickly. This also entails that people can grasp the content in the widget faster that they could scan, and understand text (page 241, col. 1, last parag.-col.3). This would enable a user to be able to easily navigate a file by quickly locating desired words in a document by spotting the places where the words are located and distributed by merely looking at a single location in the widget.

Claim 20 is directed towards a computer program product on a computer-readable medium for storing the steps found in claim 10, and therefore is similarly rejected.

Claim 30 is directed towards a computer system for implementing the steps found in claim 10, and therefore is similarly rejected.

Regarding claim 32, which depends on claim 10, Aalbersberg discloses the display of a results window having a list of indicators—*selectable concept indicators*-- presenting the relevance of the query words or concepts of interest using color scheme to indicate which concept or query words are present in the document. The indicators also have a view button, which allows a user to select the corresponding indicator—first, second, third indicator, etc., to view the full text of the document containing concentration of the location of the query words or *concept of interest*. In response to the selection of the view button, the document is retrieved and analyzed for the corresponding query words present in the document. Each query word is retrieved, and displayed using the color scheme (col. 6, L. 1-39, and fig. 4-5). Aalsbersberg fails to explicitly disclose *displaying in the visual indicator showing concentrations of the second user-specified concept of interest.* However, However, Card teaches the display of a graphical widget-- *visual indicator*—which allows one selection to determine two values (fig.9, page 242, col.3, parag.2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Ball, and Card, because Card teaches the benefit of permitting humans to recognize spatial configuration, relationships among elements of the 2D widget, quickly. This also entails that people can grasp the content in the widget faster that they could scan, and understand text (page 241, col. 1, last parag.-col.3). This would enable a user to be able to easily navigate a file by quickly locating desired words in a document by spotting the places where the words are located and distributed by merely looking at a single location in the widget.

Claim 34 is directed towards a computer program product on a computer-readable medium for storing the steps found in claim 32, and therefore is similarly rejected.

Claim 36 is directed towards a computer system for implementing the steps found in claim 32, and therefore is similarly rejected.

Regarding independent claim 37, Aalbersberg discloses a window for receiving query words–"car, sales, Europe"-- indicating user's concepts of interest input (c. 2, L. 1-58, and fig. 2).

Furthermore, Aalbersberg discloses that in response to the selection of a view button, a document is retrieved and *analyzed* for the corresponding query words—*occurrences and persistences of the first and second concept of interest*-- present in certain locations of the document. Each query word, such as car, sales, and Europe, is retrieved, and displayed using the color scheme, where by looking at the document, one can see where each of the concept of interest is found, and which location has more or less of a concept of interest (col. 6, L. 1-67, and fig. 5). Aalbersberg fails to explicitly teach *—determining a combined persistence values and displaying a visual indicator showing the combined persistence values of the first and the second concept of interest at locations within the electronically stored document* However, Card teaches the display of a graphical widget-- *visual indicator*—which allows one selection to determine two values (fig.9, page 242, col.3, parag.2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Aalbersberg, and Card, because

Card teaches the benefit of permitting humans to recognize spatial configuration, relationships among elements of the 2D widget, quickly. This also entails that people can grasp the content in the widget faster that they could scan, and understand text (page 241, col. 1, last parag.-col.3). This would enable a user to be able to easily navigate a file by quickly locating desired words in a document by spotting the places where the words are located and distributed by merely looking at a single location in the widget.

Response to Arguments

13. Applicant's arguments with respect to claims 1-5, 7-8, 10-15, 17-18, 20-25, 27-28, and 30-37 have been considered but are moot in view of the new ground(s) of rejection.
The Applicant indicates that the claims have been amended, and that the prior art references do not teach or suggest the amended limitation (pages 15-17). The Applicants are directed towards the rejection of the newly added limitation to the claims above, in view of the newly found piece of prior art.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

I. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cesar B. Paula whose telephone number is (571) 272-4128. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:00 p.m. (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong, can be reached on (571) 272-4124. However, in such a case, please allow at least one business day.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, go to http://portal.uspto.gov/external/portal/pair. Should you have any questions about access to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866 217-9197 (toll-free).

Any response to this Action should be mailed to:
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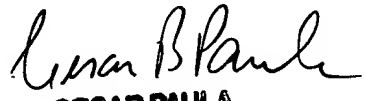
Or faxed to:

- **(571)-273-8300** (for **all** Formal communications intended for entry)



CESAR PAULA
PRIMARY EXAMINER
11/28/05